## ABSTRACT OF THE DISCLOSURE

An image data transmission apparatus in an optical subscriber network is disclosed, which comprises: one optical line termination for receiving MPTS data from an outside, packetizing the received MPTS data into HDLC packets, and transmitting the HDLC packets as optical signals; and a plurality of ONUs connected to the OLT, the ONU receiving the optical signal transmitted from the OLT, converting the optical signal into an electrical signal, extracting MPTS data from the converted HDLC packet, and switching the MPTS data to each subscriber. The image data transmission apparatus processes HDLC-based MPTS data, increases degree of integration of data, and therefore enables the optical subscriber network to include more channels.